

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-19. (Canceled):

20. (Currently Amended): A method for determining for a wireless device a signal coverage along a route [for a wireless device] comprising the steps of:

receiving signal strength information for a signal;

receiving location information representing a geographic location for one or more first locations;

determining one or more local means based on the received signal strength information and a speed of a receiver of the received signal strength information;

estimating one or more second locations for the one or more local means based on the one or more first locations;

transforming the one or more second locations into [[a]] the route; and

calculating the signal coverage for the route based on a signal coverage for at least one of the one or more second locations.

21. (Original): The method of claim 20, wherein said step of calculating further comprises the step of:

calculating the signal coverage for the route based on the following equation:

$$R_{cp} = \frac{\sum_k C_p(k) \cdot \Delta(k)}{\sum_k \Delta(k)}$$

wherein  $C_p(k)$  is the signal coverage at the one or more second locations, and  $\Delta(k)$  is the relative distance between two of the one or more second locations.

22. (Original): The method of claim 20, further comprising the step of:  
determining a standard deviation based on the received signal strength information.

23. (Original): The method of claim 22, wherein the step of determining the standard deviation further comprises:  
determining the standard deviation based on one or more difference values, such that a difference value represents the difference between a local mean and a corresponding window average.

24. (Original): The method of claim 20, wherein said step of receiving location information further comprises the step of:  
receiving the one or more first locations including one or more of the following: a plurality of latitudes, a plurality of longitudes, and at least one of a plurality of time stamps from a receiver of global positioning system information.

25. (Original): The method of claim 24, wherein said step of transforming further comprises the step of:  
determining the route based on the plurality of latitudes and the plurality of longitudes; and

dividing the route into at least two segments based on the plurality of latitudes and the plurality of longitudes when the at least two segments exceed a route break distance.

26. (Currently Amended): The method of claim 25, wherein said step of determining the route further comprises the step of:

transforming the plurality of latitudes and the plurality of longitudes into the route, such that the route includes one or more directions and one or more distances arranged to form the route.

27. (Original): The method of claim 22, wherein said step of determining the signal coverage along the route further comprises the step of:

determining the signal coverage at one of the one or more second locations based on the following equation:

$$Cp(r) = \frac{1}{2} - \text{erf} \frac{w_t - LM(r)}{\sigma_{LM}}$$

wherein  $r$  represents one of the one or more second locations,  $\sigma_{LM}$  represents the standard deviation,  $LM(r)$  represents a local mean corresponding to one of the one or more second locations,  $w_t$  represents a service threshold for the wireless device, and  $\text{erf}$  is a normal distribution error function.

Claims 28 and 29. (Canceled).

30. (Currently Amended): A system for determining for a wireless device a signal coverage along a route [for a wireless device] comprising:

- means for receiving signal strength information for a signal;
- means for receiving location information representing a geographic location for one or more first locations;
- means for determining one or more local means based on the received signal strength information and a speed of a receiver of the received signal strength information;
- means for estimating one or more second locations for the one or more local means based on the one or more first locations;
- means for transforming the one or more second locations into a route; and
- means for calculating the signal coverage for the route based on a signal coverage for at least one of the one or more second locations.

31. (Original): The system of claim 30, wherein said means for calculating further comprises:

- means for calculating the signal coverage for the route based on the following equation:

$$R_{cp} = \frac{\sum_k C_p(k) \cdot \Delta(k)}{\sum_k \Delta(k)}$$

wherein  $C_p(k)$  is the signal coverage at the one or more second locations, and  $\Delta(k)$  is the relative distance between two of the one or more second locations.

Claim 32. (Canceled).

33. (Currently Amended): A system for determining for a wireless device a signal coverage along a route for a wireless device comprising:

at least one memory comprising:

code that receives signal strength information for a signal,

code that receives location information representing a geographic location for one or more first locations,

code that determines one or more local means based on the received signal strength information and a speed of a receiver of the received signal strength information,

code that estimates one or more second locations for the one or more local means based on the one or more first locations,

code that transforms the one or more second locations into a route, and

code that calculates the signal coverage for the route based on a signal coverage for at least one of the one or more second locations; and

at least one processor that executes said code.